ABSTRACT

The portion of TDMA frames otherwise containing the sync word is eliminated for one or more data frames at the end of a TDMA data burst to provided added bandwidth for data payload or for a reduced

5   bandwidth. Once a communication channel has been established and is in steady state mode (after receipt of one or more frames), the sync word is eliminated from the remaining frame structure. Drift of a local clock with respect to an incoming data stream is monitored using an oversampled or multiplied master clock to provide suitable resolution to determine an

10   approximate position of an active edge of the master clock with respect to a bit or symbol being clocked. Any drift from center results in an adjustment of the local master clock. In a preferred embodiment, the drift is measured in a last bit or symbol of a received TDMA burst, and the master clock is adjusted to re-center the local master clock with respect to

15   that last bit. Accordingly, the receiver is 'tuned' to the clock signal of the transmitting TDMA device such that the receiving TDMA device can predict where the next start of frame will occur. By doing so, the sync word is no longer necessary in the remaining frames of the TDMA burst to decode the start of next TDMA frame. The sync word may be included in

20   more than one frames in the beginning of the TDMA burst, but is eliminated from one or more frames at the end of the TDMA burst.